

ATOMIC LAYER EPITAXY APPARATUS

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Patent Number: JP5234899

Publication date: 1993-09-10

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Requested Patent: JP5234899

Application
Number: JP19910236105 19910917

Priority Number(s):

IPC Classification: H01L21/205; C23C14/32; C30B23/02; H01L21/203; H01L21/365;
H01L33/00

EC Classification:

EC Classification:

Equivalents:

Abstract

PURPOSE: To reduce a volume of a vacuum chamber, to extremely effectively conduct an atomic layer epitaxy and to improve reliability.

CONSTITUTION: Gas cells 20, 24, 26, 25 are disposed in a vacuum chamber 16. Shapes of discharge ports of the cells 20, 24, 26, 25 are formed in a rectangular shape in which its long side is at least longer than a diameter of a substrate 15. A gas diffusion plate is provided from gas introducing tubes of the cells 20, 24, 26, 25 to the ports. A plurality of the substrates 15 are rotatably moved perpendicularly to the diffusing directions of the cells 20, 24, 26, 25 to alternately irradiate the substrates 15 with a plurality of types of the gases from the cells 20, 24, 26, 25, thereby repeating an atomic layer epitaxy.